

What is claimed is:

1. An image forming system comprising:

image forming means for forming an image on a sheet fed thereto;

stapling means for stapling a stack of sheets each carrying an image formed by said image forming means thereon; and

control means for causing said image forming means to form an image in accordance with input image data and causing said stapling means to staple the stack of sheets at a preselected position;

wherein when sheets of different sizes are mixed together, said controller inhibits said stapling means from stapling the stack of sheets except when each short edge of a large size sheet and each long edge of a small size sheet are identical in length in a direction perpendicular to a direction of sheet feed and when all the images printed on the stack of sheets have a same orientation when said stack is spread after stapling.

2. An image forming system comprising:

image forming means for forming an image on a sheet fed thereto;

stapling means for stapling a stack of sheets each carrying an image formed by said image forming means thereon; and

control means for causing said image forming means to form an image in accordance with input image data and causing said stapling means to staple the stack of sheets at a preselected position;

wherein assuming that sheets of different sizes are mixed together, that each short edge of a large size sheet and each long edge of a small size sheet are identical in length in a direction perpendicular to a direction of sheet feed, and that an image is formed on said small size sheet whose long edge is positioned at a top or a bottom while an image is formed on said large size sheet whose short edge is positioned at a top or a bottom or that an image is formed on said small size sheet whose short edge is positioned at a top or a bottom while an image is formed on said large size sheet whose long edge is positioned at a top or a bottom, said control means inhibits said stapling means from stapling the stack of sheets except when said stack is to be stapled at two points of said short edge of said large size sheet and said long edge of said small size sheet superposed on each other.

3. An image forming system comprising:

image forming means for forming an image on a sheet fed thereto;

stapling means for stapling a stack of sheets each carrying an image formed by said image forming means

thereon; and

control means for causing said image forming means to form an image in accordance with input image data and causing said stapling means to staple the stack of sheets at a preselected position;

wherein assuming that sheets of different sizes are mixed together, that each short edge of a large size sheet and each long edge of a small size sheet are identical in length in a direction perpendicular to a direction of sheet feed, and that an image is formed on said small size sheet whose long edge is positioned at a top or a bottom while an image is formed on said large size sheet whose short edge is positioned at a top or a bottom, said control means inhibits said stapling means from stapling the stack of sheets, which are superposed with tops in a direction of an image meeting each other, except when said stack is to be stapled at a top right, oblique position, a top left horizontal position or a top right horizontal position with respect to said direction of an image.

4. An image forming system comprising:

image forming means for forming an image on a sheet fed thereto;

stapling means for stapling a stack of sheets each carrying an image formed by said image forming means thereon; and

control means for causing said image forming means to form an image in accordance with input image data and causing said stapling means to staple the stack of sheets at a preselected position;

wherein assuming that sheets of different sizes are mixed together, that a short edge of a large size sheet and a long edge of a small size sheet are identical in length in a direction perpendicular to a direction of sheet feed, and that an image is formed on said small size sheet whose long edge is positioned at a top or a bottom while an image is formed on said large size sheet whose short edge is positioned at a top or a bottom, said control means unconditionally inhibits said stapling means from stapling the stack except when said stack of sheets, which are superposed with tops in a direction of an image meeting with each other, is to be stapled at a top left, oblique position, a left two-point position or a right two-point position with respect to said direction of an image.

5. An image forming system comprising:

image forming means for forming an image on a sheet fed thereto;

stapling means for stapling a stack of sheets each carrying an image formed by said image forming means thereon; and

control means for causing said image forming means

to form an image in accordance with input image data and causing said stapling means to staple the stack of sheets at a preselected position;

wherein assuming that sheets of different sizes are mixed together, that a short edge of a large size sheet and a long edge of a small size sheet are identical in length in a direction perpendicular to a direction of sheet feed, and that an image is formed on said small size sheet whose short edge is positioned at a top or a bottom while an image is formed on said large size sheet whose long edge is positioned at a top or a bottom, said control means unconditionally inhibits said stapling means from stapling the stack of sheets except when said stack of sheets, which are positioned with left edges in a direction of an image meeting with each other, is to be stapled at a top left, oblique position, a left two-point position or a top left, vertical position with respect to said direction of an image.

6. An image forming system comprising:

image forming means for forming an image on a sheet fed thereto;

stapling means for stapling a stack of sheets each carrying an image formed by said image forming means thereon; and

control means for causing said image forming means

to form an image in accordance with input image data and causing said stapling means to staple the stack of sheets at a preselected position;

wherein assuming that sheets of different sizes are mixed together, that a short edge of a large size sheet and a long edge of a small size sheet are identical in length in a direction perpendicular to a direction of sheet feed, and that an image is formed on said small size sheet whose short edge is positioned at a top or a bottom while an image is formed on said large size sheet whose long edge is positioned at a top or a bottom, said control means unconditionally inhibits said stapling means from stapling the stack except when said stack, which are positioned with left edges in a direction of an image meeting with each other, is to be stapled at a top right, oblique position or a top two-point position with respect to said direction of an image.

7. An image forming apparatus comprising:

image forming means for forming an image on a sheet in accordance with image data and print conditions input thereto;

sheet feeding means for feeding a sheet to said image forming means, wherein said sheet feeding means includes a plurality of trays each being loaded with a stack of sheets of a particular size in a short edge feed position

in which each long edge of said sheets is parallel to a direction of sheet feed or a long edge feed position in which said long edge is perpendicular to said direction;

sheet discharging means for sequentially discharging the sheets sequentially coming out of said image forming means;

stapling means for stapling the sheets stacked thereon; and

control means for controlling said image forming means, said sheet feeding means, said sheet discharging means and said stapling means and selecting any one of the trays in accordance with, among the print conditions, a stapling position of the stack and a direction of image formation on the sheets.

8. The apparatus as claimed in claim 7, wherein when said print conditions include productivity-priority processing, said control means gives priority to one of the trays storing the sheets that can be processed most efficiently by taking account of a stapling time of said stapling means and an image forming time on each sheet.

9. The apparatus as claimed in claim 8, wherein said control means gives priority to an oblique stapling position.

10. The apparatus as claimed in claim 8, wherein a host sends the print conditions together with the image

data.

11. The apparatus as claimed in claim 8, wherein when the productivity-priority processing is designated, said control means gives priority to one of the trays storing the sheets to be conveyed with long edges thereof being positioned perpendicular to a direction of sheet feed.

12. The apparatus as claimed in claim 11, wherein said control means gives priority to an oblique stapling position.

13. The apparatus as claimed in claim 7, wherein said control means gives priority to any one of an oblique position, a horizontal position and a vertical position for stapling in accordance with the print conditions.

14. The apparatus as claimed in claim 7, wherein a host sends the print conditions together with the image data.